FloodSAFE CALIFORNIA

Habitats-Existing Conditions and Tracking

Shaded Riverine Aquatic Cover (SRA)

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Overview

- Define SRA
- SRA history
- Methods
- Data Status
- Challenges and Opportunities

CVFSCS Goals and Targets

- Ecosystem Processes
  - Inundated Floodplain
  - Geomorphic Processes
- Habitats
  - **SRA**
  - Riparian
  - Marsh
  - Agriculture
- Species
  - Target Species
  - T&E, Sensitive Species
- Stressors
  - Fish Passage
  - Revetment
  - Invasive Plants

Shaded Riverine Aquatic (SRA) Cover

Shaded Riverine Aquatic (SRA) Cover is defined as the near shore aquatic area occurring at the interface between a river and adjacent ***woody riparian habitat****. The principal attributes of this valuable cover type include: (a) the adjacent bank being composed of* ***natural, eroding substrates supporting riparian vegetation*** *that either overhangs or protrudes into the water, and (b) the water containing variable amounts of* ***woody debris****, such as leaves, logs, branches and roots, as well as* ***variable depths, velocities, and currents.***

(USFWS 1992 http://www.calwater.ca.gov/Admin_Record/D-020602.pdf)

Three Attributes

Historic SRA Status

- 95% of historic riparian and wetland no longer exist in the Sacramento and San Joaquin valleys.(The Bay Institute 1998)

- In 1988, the banks of lower Sacramento River and 4 primary distributaries (83.5 miles of channel), 20% had SRA=28 acres. Estimate historic values to be 80% SRA=400 acres. 93% reduction in SRA habitat. (USFWS 1988)

- 450,000 feet of SRA cover has been removed from the Sacramento River and Sacramento-San Joaquin Delta by bank protection and revetment efforts. (USFWS 1988)

Habitat Summary

- SRA habitat quantity, quality, and connectivity has declined on the Sacramento River system, primarily because of bank stabilization and revetment.

- SRA habitats are created and maintained by natural dynamic hydrologic and geomorphic processes.

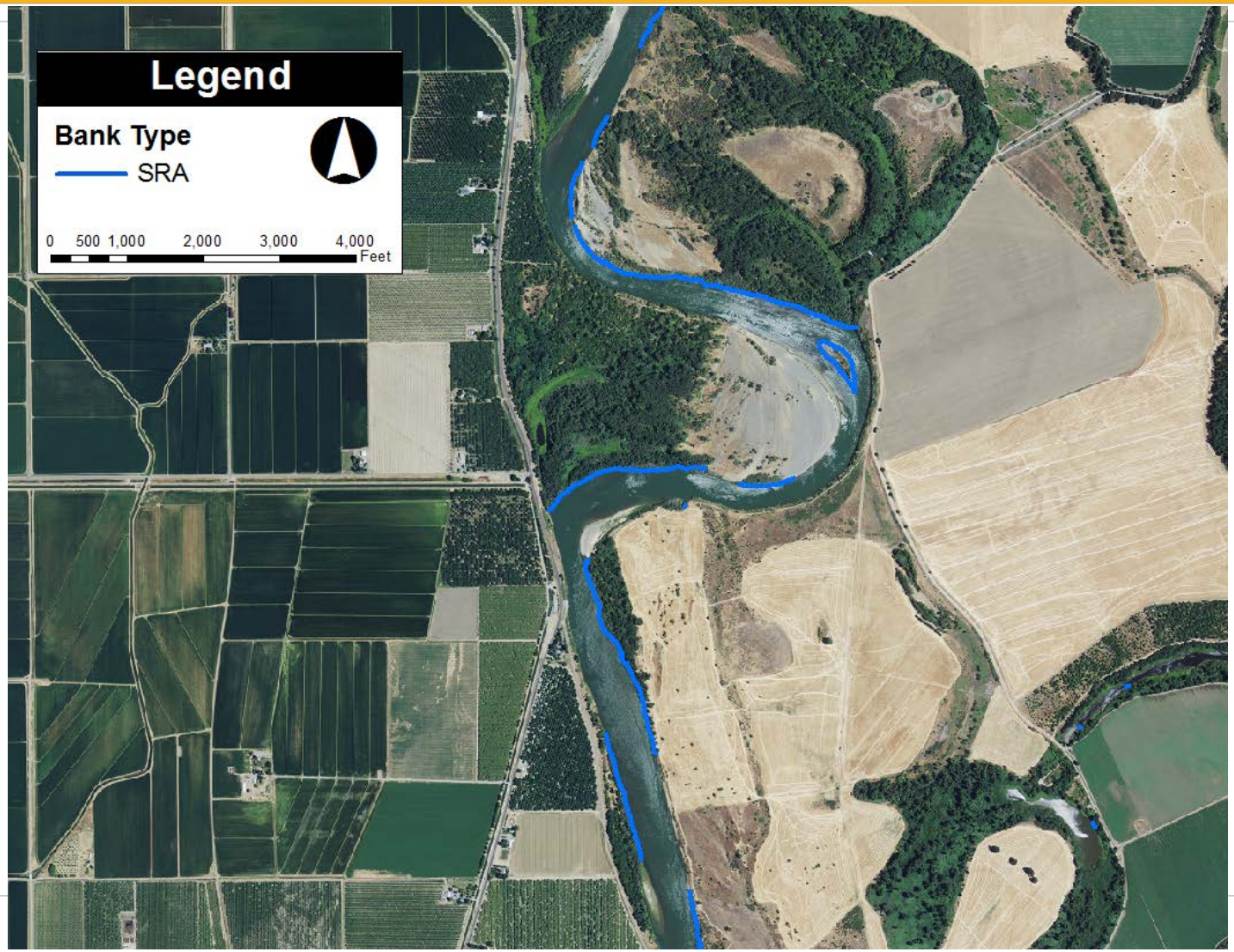
- SRA habitats are critical for native aquatic and terrestrial species.

SRA Data Objectives and Methods

Revetment | Vegetation | SRA

- Document existing conditions Sacramento, Feather, and San Joaquin River Conservation Planning (CPA) Areas
- Quantify the length of SRA Cover using repeatable methods
- Leverage other efforts and data
- Identify opportunities for improvement
- Measure success of CS implementation

More Methods



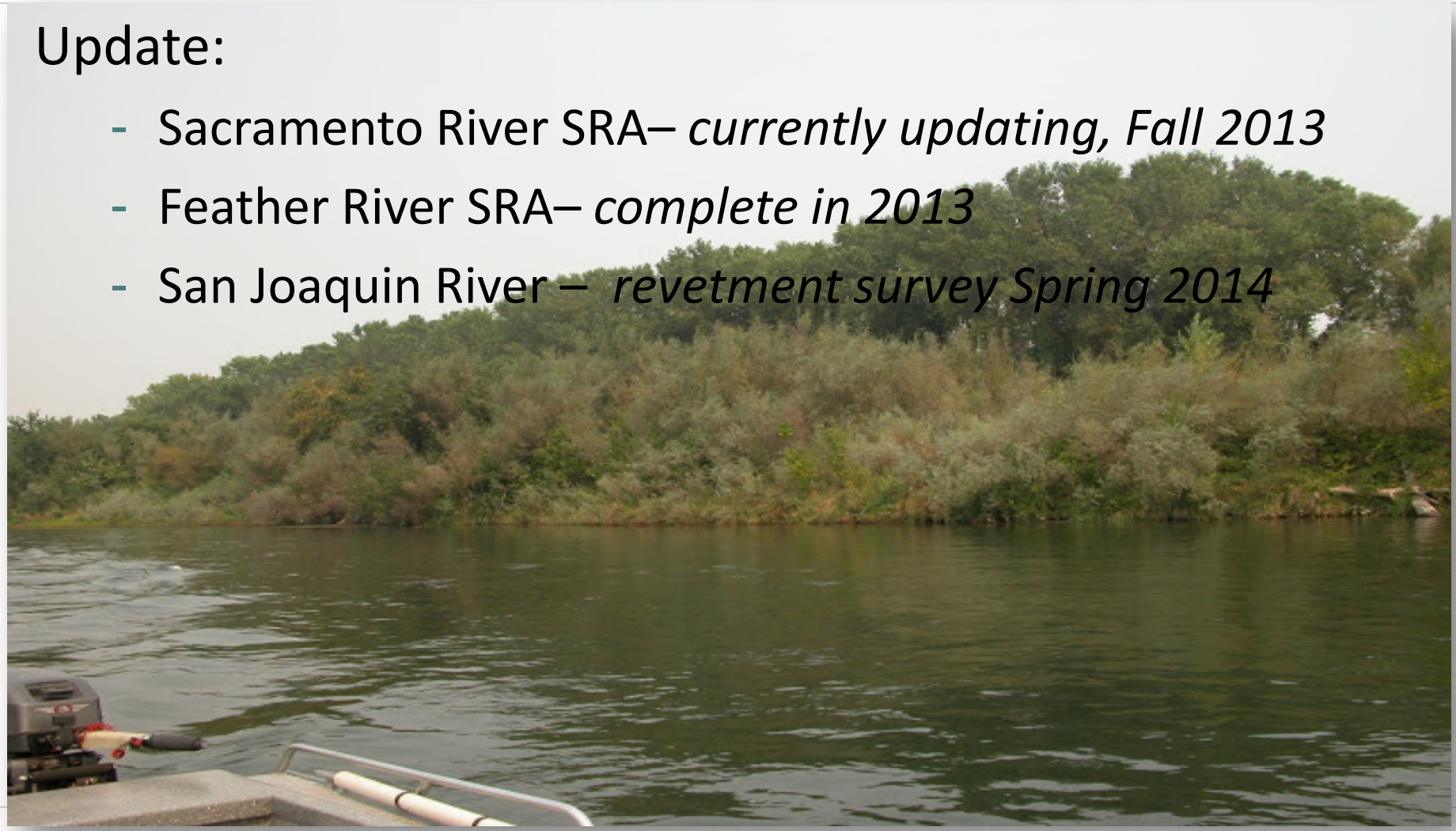
Challenges

- Current method does not quantify in stream cover.
- Current method relies on other data collection and analysis efforts.
- SRA data inherits the challenges of the revetment and vegetation data it is built on.

Defining Existing Conditions

Update:

- Sacramento River SRA– *currently updating, Fall 2013*
- Feather River SRA– *complete in 2013*
- San Joaquin River – *revetment survey Spring 2014*



Identifying Improvement Opportunities

Opportunity Analyses:

- Potential for restoration
- Conservation
- Improving connectivity
- FROA
- Multi objective projects

Need for Continued Monitoring

SRA is not static over time:

- Landuse changes can impact SRA habitat.
- High water events and channel migration can change SRA habitat distribution.
- Improvements to the system will impact SRA quality, quantity, and connectivity.
- Trees grow and die.

Questions?